UNITED
NATIONS

E

Economic and Social Council

Distr.
GENERAL

E/CN.3/1995/8
18 January 1995

ORIGINAL: ENGLISH

STATISTICAL COMMISSION
Twenty-eighth session
27 February-3 March 1995
Item 13 of the provisional agenda*

Task Force on Environment Statistics

Note by the Secretary-General

The Secretary-General has the honour to transmit to the Statistical Commission the report of the Task Force on Environment Statistics (Convener: Statistical Division of the United Nations Secretariat (UNSTAT)), which is contained in the annex. The report is transmitted to the Commission in accordance with a request of its Working Group on International Statistical Programmes and Coordination at its seventeenth session (E/CN.3/1995/2, para. 18).

* E/CN.3/1995/1.

95-01626 (E) 070295 100295

Annex

REPORT OF THE TASK FORCE ON ENVIRONMENT STATISTICS

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INTRODUCTION

1. The Task Force on Environment Statistics was established by the Working Group on International Statistical Programmes and Coordination at its fifteenth session (see E/CN.3/1993/21, para. 51) and its establishment was endorsed by the Statistical Commission at its twenty-seventh session. a/ Its terms of reference are those originally established by the Working Group at its fifteenth session (E/CN.3/1993/21, para. 53). The list of members of the Task Force is contained in the appendix.

2. At its special session (11-15 April 1994), the Statistical Commission, requested the Task Force on Environment Statistics to compile a description of the different programmes and activities carried out in the fields of environment statistics, environmental indicators and environmental accounting in order to aid the coordination task across agencies; the Commission also recommended that the Task Force draw up an action-oriented work programme. b/ At its twenty-seventh session, the Commission had stressed the need to set priorities in this large and complex field of statistics.

3. The Working Group on International Statistical Programmes and Coordination, at its seventeenth session (New York, 6-9 September 1994), requested the Convener of the Task Force to prepare a progress report for submission to the Statistical Commission at its twenty-eighth session and stressed the need for the Task Force to produce an integrated programme of work (E/CN.3/1995/2, para. 18). The first meeting of the Task Force was held in New York on 12 September 1994; the minutes of that meeting are before the Commission as a background document. The present report reflects the work programme discussed at the meeting and incorporates comments received from members of the Task Force.

4. The complex and multidisciplinary nature of environment statistics requires the compilation of data from diverse sources and institutions. The coordination and harmonization of data development, collection and dissemination, therefore, is more difficult to achieve than in any other area of statistics. The Task Force has attempted to develop an integrated work programme, but the different mandates established by the governing bodies of international organizations do not at present permit the development of such a programme. The Task Force has instead prepared an integrated presentation of programmes, which reflects the agreement of Task Force members to achieve greater compatibility in their respective work programmes through continuing coordination and collaboration.

5. Current and future work is presented under three categories, basic environment statistics, environmental indicators and environmental accounting, each of which constitute a separate section. Basic environment statistics (sect. I) comprise statistical variables collected through monitoring or primary statistical surveys. Environmental indicators (sect. II) can be considered as a selection from or combination of multipurpose statistics; they are typically targeted on key environmental concerns or policy objectives. Environmental and natural resource accounting (sect. III) present environmental data in a statistical accounting system that facilitates aggregation and cross-sectoral comparison.

6. Within each section, there are subsections on activities to date, future work and gaps. Activities to date highlight key programmes only. For a more comprehensive and detailed description, the synoptic tabulation prepared by the Task Force, which is before the Commission as a background document, should be consulted; it is intended to update the synoptic tabulation biennially for presentation to the Statistical Commission. Future work focuses on global and regional initiatives, (the international organizations involved are indicated in parentheses). Target dates for achieving outputs of future work, where provided by organizations, are also indicated. Gaps have been identified based on analysis of the scope and coverage of future work; they do not necessarily reflect any priorities for future programmes.

I. BASIC ENVIRONMENT STATISTICS

A. Development of concepts and methods

1. Activities

7. The following are activities to date:

(a) At the global level, UNSTAT prepared two related publications: Framework for the Development of Environment Statistics c/ and Concepts and Methods of Environment Statistics; d/

(b) At the regional level, the Economic Commission for Europe (ECE) has prepared standard international classifications for different sectors of environment statistics and has issued those classifications and other methodological work in a document entitled "Readings in international environment statistics" (E/ECE/CES(02)/ES5). General methodological work is currently also being carried out by the Economic and Social Commission for Asia and the Pacific (ESCAP), the Economic Commission for Africa (ECA) and the Statistical Office of the European Communities (Eurostat) (jointly with ECE) for their respective regions;

(c) Methodological work has been carried out in particular areas by the United Nations Environment Programme (UNEP) (global environmental monitoring); the World Health Organization (WHO) (environmental health statistics); the Food and Agriculture Organization of the United Nations (FAO) (environment-related statistics of agriculture, forestry and fishery); the World Meteorological Organization (WMO) (meteorological and hydrological data); the United Nations Centre for Human Settlements (Habitat) (human settlements statistics); and the Organisation for Economic Cooperation and Development (OECD) (greenhouse gas inventories).

2. Future work

8. Work will focus on the development of harmonized concepts and methods of environment statistics and their adaptation to the needs and conditions in developing countries, with the following outputs:

(a) International guidelines on concepts and methods for selected areas of environment statistics, including waste statistics; fauna, flora and habitat statistics; and statistics on chemicals in the environment (ECE, in collaboration with Eurostat, 1996);

(b) Technical report on urban-data concepts, definitions and classifications (Habitat);

(c) Manuals and guidelines for pollution monitoring (UNEP, WHO); coordinated as part of the Global Environmental Monitoring System (GEMS/UNEP);

(d) Joint OECD/Inter-governmental Panel on Climate Change (IPCC) work on guidelines and methodologies for national greenhouse gas inventories (OECD);

(e) Regional handbooks of environment statistics, coordinated with UNSTAT and based on UNSTAT methodologies (ECA, ESCAP, UNSTAT);

(f) Glossary of environment statistics (UNSTAT, with the assistance of the Intergovernmental Working Group on the Advancement of Environment Statistics, 1995);

(g) Translation mechanism to correlate existing land-cover and land-use nomenclatures, including extensive efforts for internationally agreed definitions (UNEP and FAO; first effort end-1995/early 1996).

3. Gaps

9. The major gap identified is the need for regional handbooks of environment statistics for Latin America and the Caribbean, western Asia and the economies in transition. The purpose of such handbooks would be to adapt global methodologies to the environmental conditions and statistical priorities in the region.

B. Data collection and dissemination

1. Activities

10. The following are activities to date:

(a) At the global level, UNEP and the World Resources Institute (WRI) publish regularly the Environmental Data Report and World Resources Report;

(b) At the regional level, ECE, Eurostat and OECD have published environmental data reports for their member States. They have currently merged their efforts (including WHO-Europe) in the preparation of the statistical supplement to a report entitled "Europe's environment 1993";

(c) For particular subject areas, global databases on air quality, water, radiation and food contamination have been established under the UNEP/GEMS programme, in collaboration with the specialized agencies. Data collection and

dissemination is also being carried out on health (WHO); meteorology and hydrology (WMO); agriculture, forestry and fishery (FAO); and large cities (Habitat).

2. Future work

11. Work will focus on international data collection, with the following outputs:

(a) Environmental Data Report (currently UNEP) and World Resources Report (currently WRI, combined from 1996-1997 onwards);

(b) Regional compendia of environment statistics (ECE, ECA, ESCAP and Statistical Committee of the Commonwealth of Independent States (CIS));

(c) OECD Environmental Data Compendium (biennially);

(d) International Statistical Yearbook of Large Towns (Habitat);

(e) Second Compendium of Human Settlements Statistics and statistical annex to the Second Global Report on Human Settlements (Habitat);

(f) Directory of Environment Statistics (currently a joint UNSTAT/UNEP-Harmonization of Environmental Measurement (HEM) project, 1995).

3. Gaps

12. The main gaps identified are the needs for:

(a) A global compendium of environment statistics;

(b) Compendia of environment statistics for Latin America and the Caribbean and for western Asia, based on the concepts and methods presented in global and regional manuals of environment statistics. The use of such manuals would facilitate the harmonization of national statistics and improve their international comparability.

C. Technical cooperation

1. Activities

13. The following are the activities to date:

(a) At the regional level, Eurostat and ECE are focusing their technical support on the central and eastern European economies in transition, while ESCAP and ECA are organizing workshops and providing substantive support to selected countries in their regions;

(b) For particular subject areas, capacity-building is being carried out by UNEP under the various GEMS programmes and by WHO in the field of health-related monitoring; technical guidance and cooperation with developing countries for the establishment of greenhouse gas inventories is being provided by OECD.

2. Future work

14. Work will focus on strengthening technical cooperation at the regional level through training workshops and support of country projects, with the following outputs:

(a) Workshop on environmental statistics, indicators and accounting for the African region (UNSTAT and ECA, 1995); the workshop is intended to create awareness and understanding of newly developed concepts and methods for possible implementation in countries;

(b) Technical support to country projects (projects will assist countries in implementing national programmes of environment statistics, which will in turn, provide new experience for the further development of methodologies), as follows:

(i) ESCAP: Bangladesh, China, Fiji, Indonesia, Nepal and Thailand;

(ii) ECA: Botswana, Cape Verde, Cameroon and Nigeria;

(iii) Habitat: Kenya and Romania (selected cities);

(iv) UNSTAT: Côte d'Ivoire (1995), Zambia (1995/1996).

3. Gaps

15. The main gaps identified are the need for:

(a) Training workshops for Latin America and the Caribbean and for western Asia;

(b) The development of geo-referenced and subnational environmental data;

(c) Commonly accepted concepts and methods, the use of which would avoid the establishment of dissimilar, non-comparable national statistical systems.

II. ENVIRONMENTAL INDICATORS

A. Development of concepts and methods

1. Activities

16. The following are activities to date:

(a) Various frameworks and lists of environmental and sustainable development indicators for compilation at the global level have been prepared by governmental and non-governmental organizations in the wake of the United Nations Conference on Environment and Development (UNCED);

(b) In order to draw upon the resources of academic and scientific communities, a project on developing highly aggregated indicators of sustainable development was launched by the Scientific Committee on Problems of the Environment (SCOPE);

(c) UNSTAT developed a draft framework for the development of indicators of sustainable development (FISD), which was discussed at the UNEP/UNSTAT Consultative Expert Group Meeting on Environmental and Sustainable Development Indicators (Geneva, 6-8 December 1993);

(d) The Department for Policy Coordination and Sustainable Development of the United Nations Secretariat and UNSTAT have been working on a provisional list of indicators for sustainable development as part of a work programme to be presented to the Commission on Sustainable Development at its third session (New York, 10-28 April 1995);

(e) A core list of environmental indicators has been developed as a subset of the list of indicators of sustainable development (Intergovernmental Working Group on the Advancement of Environment Statistics and UNSTAT, 1995);

(f) A framework for environmental indicators was developed by OECD and a sustainable indicator matrix by the World Bank;

(g) Several regional organizations, notably ECE, Eurostat, OECD and the specialized agencies (WHO and Habitat), have pursued the development of indicators, mainly for their respective regions and in their respective areas of responsibility;

(h) FAO has identified and classified indicators for measuring the potential for an environmental problem, the existence of an environmental problem and the severity (external cost) of the problem;

(i) The publication An Overview of Environmental Indicators: State of the Art and Perspectives was issued by UNEP.

2. Future work

17. Work will focus on the development of agreed environmental and sustainable development indicators, with the following outputs:

(a) Provisional list of and work programme on sustainable development indicators, to be submitted to the Commission on Sustainable Development at its third session (Department for Policy Coordination and Sustainable Development, with support from organizations and Governments, 1995);

(b) Manual of environmental indicators, describing concepts, methods of compilation, classifications, data sources and tabulations (UNSTAT, 1997);

(c) Report on the development and use of environmental health indicators (WHO);

(d) A core set of environmental indicators (FAO, 1995).

3. Gaps

18. The main gaps identified are the needs for:

(a) Guidelines/manuals for regional implementation;

(b) Coordination in the methodological development of indicators of sustainable development beyond merely networking, as recommended by the UNEP/UNSTAT Consultative Expert Group Meeting on Environmental and Sustainable Development Indicators.

B. Compilation of indicators

1. Activities

19. The following are activities to date:

(a) At the regional level, OECD regularly compiles environmental indicators and EUROSTAT some basic indicators, in their respective regions;

(b) Habitat compiles urban environmental indicators for the cities of selected developing countries.

2. Future work

20. Work will focus on the compilation of environmental and sustainable development indicators at the global level, with the following outputs:

(a) A global compendium of environmental indicators (UNSTAT, OECD and regional commissions, 1996, pending approval by the Statistical Commission);

(b) OECD Environmental Indicators (biennially);

(c) Progress reports on the implementation of Agenda 21 (the Department for Policy Coordination and Sustainable Development); e/

(d) A report entitled "Monitoring environmental progress" (World Bank, 1995).

3. Gaps

21. The main gaps identified are the needs for:

(a) A global compilation of environmental indicators;

(b) Coordination of the international compilation of indicators of sustainable development. The Department for Policy Coordination and Sustainable Development is expected to improve coordination in this area; UNSTAT will coordinate the collection of environmental statistics and indicators, with the assistance of the Intergovernmental Working Group on the Advancement of Environment Statistics. In order to avoid duplication of efforts, use will be made of fully compatible questionnaires, notably those of OECD. However, there is no efficient mechanism to ensure coordination with data collection by other governmental and non-governmental organizations.

C. Technical cooperation

1. Activities

22. To date, Habitat has carried out country projects in the cities of a number of developing countries.

2. Future work

23. Work will focus on providing substantive support to data development for the compilation of indicators in developing countries, with the following outputs:

(a) Workshop on environmental statistics, indicators and accounting for the African region (UNSTAT, ECA, 1995);

(b) Forest sustainability and biodiversity indicators, and water sustainability indicators, to be derived, if possible, from the UNEP-ECE country project in Hungary on environmental accounting (ECE);

(c) Expert meetings and reports on the development of environmental indicators in Latin America and the Caribbean (UNEP, end-1994 and 1995);

(d) Sustainability data centre and network for Latin America and the Caribbean (UNEP);

(e) Country projects, workshops and seminars on indicators and statistics (FAO, 1996).

3. Gaps

24. The main gaps identified are the needs for:

(a) Country projects on environmental statistics and indicators for Latin America and the Caribbean and for Western Asia;

(b) Improving coordination with the regional commissions and UNEP.

III. ENVIRONMENTAL ACCOUNTING

A. Development of concepts and methods

1. Activities

25. The following are activities to date:

(a) Existing concepts and methods of environmental and natural resource accounting have been integrated within the framework of the System of National Accounts 1993 (1993 SNA) in the System for integrated Environmental and Economic Accounting" (SEEA), which was prepared by UNSTAT and issued in the Handbook of National Accounting: Integrated Environmental and Economic Accounting; f/

(b) Accounting for selected natural resources or particular environmental concerns is being developed by FAO (food and agricultural production); WHO (information for environment and health management); and the World Bank (valuation and green accounting indicators);

(c) ECE and Eurostat jointly developed the Single European Standard Statistical Classification of Environmental Protection Activities and Facilities;

(d) Programmes for adapting SEEA to regional needs and conditions are being carried out by ECA, ESCAP, ECE and Eurostat, according to their respective mandates;

(e) The use of the results of environmental accounting in policy analysis for sustainable economic growth and development has been researched in studies by the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat/UNSTAT, Eurostat, OECD and the World Bank.

2. Future work

26. Work will focus on the development of standardized concepts and methods of environmental accounting based on research and country experience, with the following outputs:

(a) Physical natural resource accounting (stocks and use of natural resources) (OECD);

(b) Physical environmental accounting (stocks and use of natural resources and pollutants) (ECE);

(c) Training manual on environmental and natural resource accounting (UNSTAT, UNEP, 1997);

(d) Manual of regional environmental accounting (UNSTAT, 1997);

(e) Guidelines on environmental accounting for Africa (ECA);

(f) Handbook on environmental and natural resource accounting for Asia and the Pacific (ESCAP).

Work will also focus on research into the use of environmental accounts in planning and policy-making, with the following outputs:

(g) Analysis and report on the country use of environmentally adjusted accounting indicators (UNSTAT, 1995/96);

(h) A study on the policy use of green accounting and indicators (Eurostat).

3. Gaps

27. The main gap identified is the need for guidelines for environmental accounting for Latin America and the Caribbean, western Asia, and the economies in transition.

B. Data collection and dissemination

1. Activities

28. The following are activities to date:

(a) Compilation of integrated environmental and economic accounts is under way in a limited number of developing and industrialized countries;

(b) Partial accounting for selected natural resources (forests, oil and water) or for the calculation of selected economic indicators (green GDP or capital accumulation) has been undertaken by several governmental and non-governmental organizations.

2. Future work

29. Work will focus on the compilation of reference data and country results, with the following outputs:

(a) Database on "who is doing what" (UNEP);

(b) Comparative study of country projects and case studies (approaches, statistical results and evaluation) (UNSTAT, in collaboration with the regional commissions, 1997).

3. Gaps

30. The main gap identified is the need for an international compendia of environmental accounts.

C. Technical cooperation

1. Activities

31. The following are activities to date:

(a) Substantive support of country projects to assist in the implementation of national programmes of environmental accounting and to test newly developed methodologies (UNSTAT, UNEP, the United Nations Development Programme (UNDP), ECE and the World Bank);

(b) Regional workshops on integrated environmental and economic accounting (UNDP, UNSTAT and UNEP, for developing countries and the economies in transition). The purpose of the workshops was to create awareness and understanding of new accounting methodologies.

2. Future work

32. Work will focus on the improved coordination of the technical cooperation programmes of country projects, training seminars and international workshops, with the following outputs:

(a) Global project envisaged (workshops, seminars and country projects) on environmental accounting (UNDP and UNSTAT);

(b) Country projects for Indonesia, the Republic of Korea, Colombia and Ghana (UNSTAT, UNEP and UNDP, 1995);

(c) Country project for Hungary (UNEP, ECE, 1995);

(d) Workshop on environmental statistics, indicators and accounting for the African region (UNSTAT, ECA, 1995);

(e) Regional seminar for Asia and the Pacific (ESCAP);

(f) Regional workshops on natural resource accounting for African countries (UNEP, 1995).

3. Gaps

33. The main gaps identified are the needs for:

(a) Training seminars for Latin America and the Caribbean and for western Asia;

(b) Country projects in developing countries and the economies in transition;

(c) Improving the coordination of international support to country activities, with a view to applying standard concepts and methods; coordination is currently achieved through joint programming among UNSTAT, UNEP and the regional commissions. There is no coordination of other bilateral or multilateral technical cooperation programmes.

IV. POINTS FOR DISCUSSION

34. The Statistical Commission may wish to:

(a) Comment on the level of coordination that has been achieved in the fields of environment statistics, environmental indicators and environmental accounting, and recommend possible action to improve that coordination;

(b) Discuss the need for further work of the Task Force on Environment Statistics;

(c) Comment on the proposals for future work of the Task Force, as described in the integrated presentation of programmes above.

Notes

a/ Official Records of the Economic and Social Council, 1993, Supplement No. 6 (E/1993/26), para. 27.

b/ Official Records of the Economic and Social Council, 1994, Supplement No. 9 (E/1994/29), para. 29.

c/ United Nations publication, Sales No. E.84.XVII.12.

d/ United Nations publications, Sales No. E.88.XVII.14 and E.91.XVII.18.

e/ Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, vol. I, Resolutions adopted by the

Conference (United Nations publication, Sales No. E.93.I.8), resolution 1, annex II.

f/ United Nations publication, Sales No. E.93.XVII.12.

Appendix

LIST OF MEMBERS OF THE TASK FORCE

Department for Policy Coordination and Sustainable Development of the United Nations Secretariat

Economic Commission for Africa

Economic Commission for Europe

Economic Commission for Latin America and the Caribbean

Economic and Social Commission for Asia and the Pacific

Economic and Social Commission for Western Asia

Food and Agriculture Organization of the United Nations

International Atomic Energy Agency

International Monetary Fund

International Statistical Institute

Organisation for Economic Cooperation and Development

Statistical Committee of the Commonwealth of Independent States

Statistical Office of the European Communities

United Nations Centre for Human Settlements

United Nations Conference on Trade and Development

United Nations Development Programme

United Nations Environment Programme

United Nations Research Institute for Social Development

World Bank

World Health Organization

World Meteorological Organization

World Tourism Organization